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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,421	07/02/2003	Lucy M. Bull	005950-811	5150
21839	7590	06/27/2005	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			GRIFFIN, WALTER DEAN	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			1764	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. <u>10/613,421</u>	Applicant(s) BULL ET AL.	
	Examiner Walter D. Griffin	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/3/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

The rejections described in the office action mailed on December 28, 2004 have been withdrawn in view of the amendment filed on April 27, 2005. There is no motivation to combine the references of Loughran and Sartori. The arguments concerning these rejections are moot and will not be addressed.

New rejections follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Glass et al. (US 3,373,180).

The Glass reference discloses a process for removing contamination from a stream derived from a Fischer-Tropsch synthesis process. These streams include hydrocarbon streams. The contamination removal process comprises passing the stream to a zone in which the stream contacts a cross-linked, ion exchanging polymeric resin thereby removing iron contaminants from stream. These iron contaminants come from the catalyst and the reactor system and would necessarily have a size within the range claimed. The resin comprises a copolymer of styrene and

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divinyl benzene and is a strong acid exchange resin. The resin may have sulfonic groups. See column 1, lines 9-32, 43-49, and 54-60; column 2, lines 28-32, 40-47, and 54-60; and column 20-24 and 47-55.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (US 3,373,180).

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The Glass reference discloses a process for removing contamination from a stream derived from a Fischer-Tropsch synthesis process. These streams include hydrocarbon streams. The contamination removal process comprises passing the stream to a zone in which the stream contacts a cross-linked, ion exchanging polymeric resin thereby removing iron contaminants from stream. These iron contaminants come from the catalyst and the reactor system. The resin comprises a copolymer of styrene and divinyl benzene and is a strong acid exchange resin. The resin may have sulfonic groups. See column 1, lines 9-32, 43-49, and 54-60; column 2, lines 28-32, 40-47, and 54-60; and column 20-24 and 47-55.

The Glass reference does not disclose if the process is a continuous or batch process.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Glass by operating the process in either a continuous mode or a batch mode because the hydrocarbon would be expected to be purified effectively in either mode of operation.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (US 3,373,180) in view of admitted prior art.

As discussed above, the Glass reference does not disclose a filtering step.

On page 3 of the specification, applicants admit that the filtering of a stream from an F-T reactor is a conventional technique in order to remove particulates that would plug catalyst beds in subsequent reactors.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Glass by filtering because applicants admit that filtering reduces the plugging of catalyst beds in subsequent reactors.

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Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (US 3,373,180) in view of Loughran (US 2,651,655).

As discussed above, the Glass reference does not disclose distilling the feed and does not disclose passing the purified stream to a hydroprocessing step.

The Loughran reference discloses a process for removing contaminants from an F-T derived hydrocarbon stream. The process comprises passing the stream to an adsorption zone and then passing the purified stream to a hydroprocessing reactor. The Loughran reference also discloses that the stream is subjected to a distillation step. See column 1, lines 11-24 and 40-55; column 2, lines 1-42; column 3, lines 7-36; and column 5, line 19 through column 7, line 23.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Glass by distilling the feed as suggested by Loughran because undesired lighter components will be removed.

It also would have been obvious to one having ordinary skill in the art the time the invention was made to have modified the process of Glass by hydrotreating the stream because undesired components will be converted to more desired components.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glass et al. (US 3,373,180) in view of Loughran (US 2,651,655) and admitted prior art.

As discussed above, the Glass reference does not disclose filtering or distilling the feed and does not disclose passing the purified stream to a hydroprocessing step.

The Loughran reference discloses a process for removing contaminants from an F-T derived hydrocarbon stream. The process comprises passing the stream to an adsorption zone and then passing the purified stream to a hydroprocessing reactor. The Loughran reference also

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discloses that the stream is subjected to a distillation step. See column 1, lines 11-24 and 40-55; column 2, lines 1-42; column 3, lines 7-36; and column 5, line 19 through column 7, line 23.

On page 3 of the specification, applicants admit that the filtering of a stream from an F-T reactor is a conventional technique in order to remove particulates that would plug catalyst beds in subsequent reactors.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Glass by distilling the feed as suggested by Loughran because undesired lighter components will be removed.

It also would have been obvious to one having ordinary skill in the art the time the invention was made to have modified the process of Glass by hydrotreating the stream because undesired components will be converted to more desired components.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Glass by filtering because applicants admit that filtering reduces the plugging of catalyst beds in subsequent reactors.

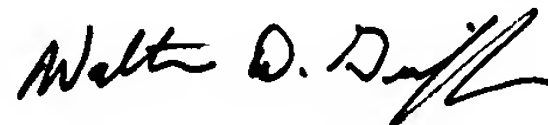
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Walter D. Griffin
Primary Examiner
Art Unit 1764

WG

June 22, 2005